MLRA Office -7
Soil Survey Update Implementation Plan
7/07

Synopsis -- The objective of this plan is to establish a framework to organize discussion and feedback on the soil survey update program. It is a means to identify MO-wide priorities and discuss the planning process the SSOs will use to develop their individual programs. The overriding goal is the delivery of accurate, reliable products to the Soil Data Mart.

The **update soil survey program** is separated into two phases: **Evaluation and Maintenance** of our current spatial and property data and **Enhancement** of our survey by using new technology and procedures. Examples of various plans are included.

Phase I. Evaluation and Maintenance

1. Evaluation of existing data to identify soil survey concerns (issues) needing future attention
   a. Evaluation of subset and physiographic legends, joins, and 37A
   b. Soil geography

2. Benchmark soils

3. Official Series Descriptions

4. Soil Taxonomy
   a. MLRA issues (CEC activity class, natric horizon criteria, prairie Alfisols)

5. Data Base – Integrity and Management
   a. Ownership, permissions, track changes to data
   b. Organize reports, queries
   c. Legend management

6. Data Base – Soil properties, Qualities, and Interpretations
   a. Typical/modal pedons
   b. Soil property data
      - organize guidelines, criteria, etc.
      - prioritize data elements
   c. Generate where possible

7. Organize Existing Data
   a. Permanent office – hard copy and electronic files
      - 30 year records
      - Series descriptions, transects, field notes
      - OSD files
      - Lab data

8. Family of Maps -- GIS Applications

Phase II. Enhancement

1. Planning Process (examples provided)
   a. Long range plan, survey priorities
      - 5 year, soil survey concerns (inventory of issues)
      - Technical team meetings, Annual work planning conferences
      - National and MO priorities
      - Work load analyses
   b. Annual plan
      - Identify needs, resources, equipment, imagery, request for assistance
      - List of priority projects
      - Work load analyses, acre analyses
   c. Project plan
      - Details of project, peer review, limited scope, process
      - Establish long term file
      - Quality assurance
      - Reportable acres

2. Spatial Changes
   a. Traditional mapping
   b. GIS assisted editing
   c. Terrain modeling (percent composition)

3. Revising Existing Data Elements
   a. Quantify, statistical relevance, prioritize
   b. Kansas' "Magnificent Seven-OM, pH, CEC, AWC, PSA, dB, Ksat

4. Populating New Data Elements
   a. Dynamic soil properties (infiltration, aggregate stability, etc.)
   b. Geochemical
   c. Crop production

5. Local/New Interpretations (gravel, compaction, range PIs)

6. MO-Wide Projects
   a. Salinity, sodicity
   b. Dynamic soil properties
   c. Saturation
   d. Soil-Landscape modeling
   e. Long-term monitoring sites
   f. Hydric soil issues

7. Misc. Issues
   a. Soil scientist development/training
   b. Job aids
   c. STATSGO
   d. Marketing
   e. MO Business Plan